

FENG et al
Appl. No. 10/810,856
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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (currently amended). A method of stabilizing adherence of a ceramic layer to a bond coat of a TBC system, comprising consisting essentially of incorporating silicon into the bond coat, maintaining cobalt present in said bond coat at a level of 1-5 wt% and maintaining yttrium present in said bond coat at a level of 0.1-8 wt%.

2 (currently amended). A method of stabilizing adherence of a ceramic layer to a bond coat of a TBC system wherein said bond coat comprises MCoCrAlY, wherein M is selected from the group consisting of nickel, iron and mixtures thereof, wherein said method consisting essentially of incorporating silicon is incorporated into the bond coat and, wherein said Co is present at a level of 1-5 wt% and said Y is present at a level of 0.1-8 wt%.

3 (original). A method according to claim 1 wherein chromium is present in an amount of 3-40 wt%.

4 (original). A method according to claim 1 wherein chromium is present in an amount of 5-30 wt%.

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5 (original). A method according to claim 1 wherein aluminum is present in an amount of 3-30 wt%.

6 (original). A method according to claim 1 wherein aluminum is present in an amount of 5-20 wt%.

7 (canceled).

8 (original). A method according to claim 1 wherein yttrium is present in an amount of 0.1-5 wt%.

9 (original). A method according to claim 1 wherein silicon is present in an amount of 0.3-5.0 wt%.

10 (original).. A method according to claim 1 wherein silicon is present in an amount of 0.5-4.0 wt%.

11 (previously presented). A method according to claim 1 wherein cobalt is present in an amount of 1-3 wt%.

12 (previously presented). A method according to claim 11 wherein cobalt is present in an amount of 1 wt%.

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13 (original). A method according to claim 1 wherein nickel is present in an amount of 15-45 wt%.

14 (original). A method according to claim 1 wherein nickel is present in an amount of 20-40 wt%.

15 (currently amended). A gas turbine component comprising a TBC system having a metallic bond coat and a ceramic layer, said bond coat ~~comprising~~ consisting essentially of silicon, and cobalt at a level of 1-5 wt% and yttrium at a level of 0.1-8 wt%.

16 (previously presented). A gas turbine component according to claim 15, wherein said silicon is present in an amount of 0.5-5 wt%.

17 (previously presented). A gas turbine component according to claim 15, wherein said cobalt is present in an amount of 1 to 3 wt%.